



Aalborg Universitet

AALBORG UNIVERSITY
DENMARK

Organizational Change in Continuing Education

A case study of action research as a pedagogical strategy within continuing education

Bundgaard, Stine Bylin; Stegeager, Nikolaj W.M.

Publication date:
2018

Document Version
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

Citation for published version (APA):

Bundgaard, S. B., & Stegeager, N. W. M. (2018). *Organizational Change in Continuing Education: A case study of action research as a pedagogical strategy within continuing education*. Paper presented at International Conference on Organizational Learning and Knowledge Capabilities, Liverpool, United Kingdom.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

Take down policy

If you believe that this document breaches copyright please contact us at vbn@aub.aau.dk providing details, and we will remove access to the work immediately and investigate your claim.

Organizational Change in Continuing Education

- A case study of action research as a pedagogical strategy within continuing education

Stine Bylin Bundgaard and Nikolaj Stegeager

Introduction

When organizations choose to spend resources on educating their employees in subject specific areas it is well known that it can be quite challenging to anchor and use the knowledge acquired through education in the organizational context (Tannenbaum and Yukl; 1992; Willert et al., 2011). This is known as the problem of transfer of training (Baldwin & Ford, 1988; Burke & Hutchins, 2007). However, most research within the field of transfer of training has been focusing on transfer after the training has come to an end (Van Merriënboer, 2002, Stegeager et al. 2013). In this article, we are especially interested in the process of transfer that occurs *during* training, and how educational settings can be constructed so that the students become active learners, combining knowledge, skills and inspiration from their training with the practice and organizational challenges they face as managers in their daily practice. Thus, the aim of this paper is to identify the pros and cons of implementing action research as a pedagogical strategy in order to converge theory and practice in university-based Continuing Education. This study is a case study involving students from the Master's program of Vulnerable Children and Youth at Aalborg University.

Paper outline

In the following we present our thoughts about action research as a pedagogical, transfer enhancing strategy aimed at promoting organizational learning. Afterwards, we introduce our case and our empirical method for data collection. This is followed by an analysis of our preliminary data. Based on this analysis we discuss how action research can be used as framework for personal *and* organizational learning within academic continuing education and what the organizers' of academic continuing education should be aware of when deciding to implement such a didactic model.

Action research

The Action Research tradition is often associated with the work of social psychologist Kurt Lewin (1948) who developed this way of combining organizational change and improvement at work with knowledge producing research in the 1930's and early 40's. Lewin was quite skeptical towards the idea that theory and practice are opposites. On the contrary, he saw no distinct and inescapable differences between the two. Thus, he is famously known for saying that: "There is nothing as practical as a good theory" (McCain, 2015). It is exactly this belief that is the foundation

of action research. Action Research as a method of combining theory and practice is oriented towards action and interaction. Learning, understanding and knowledge arise when groups of people (workers, managers and researchers) join forces to overcome practice-blocking restrictions. This is done by formulating theory-based hypotheses, experimenting, testing these hypotheses through action, and finally by evaluating the results of these actions thereby nuancing the initial hypotheses. Contrary to traditional research, the primary success criterion of action research is not only to generate new knowledge, but also a successful contextual change, with the concrete success criterion defined by the participants (Reason & Bradbury, 2001; Eikeland, 2006).

Action research as educational strategy at Aalborg University

Like all “traditional” university programs at Aalborg University, the Continuing Education Programs (Master’s Programs) are rooted in a Problem Based Learning (PBL) framework also known as “the Alborg Model”. This means that the underlying pedagogical basis is rooted in a belief that:

- Learning should be organized around real and complex issues that link theory and practice
- Knowledge is not something to be passed on, but is created in an active learning process
- Learning is a social activity that takes place in groups
- Students are responsible for organizing their own learning (Barrows, 1996; Savin-Baden and Major 2004, Graaff and Kolmos 2007):

In this respect action research can be seen as a practical frame for implementing the Aalborg PBL model. Many students within academic continuing education appreciate working from an action research point of view during their education, as it allows them to create closer links between research, learning and practice while studying. Often, students want to work with a problem from their own organization. Thus, these students will occupy a position as manager or employee in the organization, while, at the same time, taking on a research role and the responsibility for designing a combined development and research project.

As described above, action research should be viewed as a pedagogical framework that reinforces the student’s ability to combine theory, reflection and action in an organizational context. In this respect action research as a pedagogical strategy holds two different purposes:

1. To educate the student in using a specific method (action research) to promote organizational learning and change.
2. To create organizational learning with the student as initiator and mediator between education and organization – thus creation change that goes beyond the classroom.

To succeed, this method must be supported by the educational supervisor and a representative from the organization – most commonly the nearest manager.

Case

The Master of Vulnerable Children and Youth is a 2-year, part-time education for practitioners in the social sector. The students attend the education throughout four semesters corresponding to one year of full-time study. The primary educational idea is that learning should unfold in the interaction between the theory-oriented classroom and the production-oriented workplace (Willert et al., 2011). The focus of the Master's Program is on professional managership and knowledge-based social work and most students are either managers or consultants working at public institution dealing with vulnerable children and youth.

Action research as part of the study plan is introduced to the students at the beginning of the 3rd semester. In this semester, the students focus on working with their own practice, combining organizational learning and action research with the aim of initiating organizational change in their own organization. The process of the action research project is the basis for their semester report (examination report). Initially, the students are encouraged to invite some of their colleagues for a mutual organizational analysis identifying challenges or opportunities that the action research project could address. Afterwards, the students and her colleagues will seek to address these challenges through a series of action sequences as described in much of the action research literature (Coghlan & Brannick, 2010; Reason & Bradbury, 2001). Finally the student will reflect upon the process, and how the interventions were experienced by herself, her co-researchers, the others employees in the organization, and the service users.

Data collection

The data consists of several case studies based on the student's action research projects. The data collecting process is still in process (beginning late 2016 and running through 2018). Data consist of interviews with students and former students, students project reports that describes how the students have been working with organizational learning and change, as well as the researchers' field notes. Since the data-collecting process finds it end in February 2019, this paper should be seen as part of an ongoing research project and the conclusions brought forward as preliminary conclusions based upon a sample of the entire data set.

Prior to the first interviews an interview guide were constructed based upon the theoretical expertise of the researchers. The interviews, which mainly were conducted at the workplace of the informants, were tape-recorded and transcribed verbatim. A generic thematic analysis was applied (Savin-Baden & Major, 2013). The researchers independently went through data from the first group of interviews to identify common themes. Upon the initial and separate categorisation the researchers through iterative discussions arrived at a consensus concerning common themes. All researchers scored the material independently. The quotes presented in the results' section represents general themes.

Analysis

Problem based learning and action research – An organizational voyage of discovery

As mentioned earlier, the Master of Vulnerable Children and Youth rest upon the "Aalborg PBL Model". However, since Master's Programs are part time educations, aimed at practitioners, these programs have a distinct focus on learning beyond the classroom. This understanding of learning and practice as inseparable educational components becomes increasingly important throughout the 4 semesters and ends up as the dominant educational strategy in the third semester, where the problem based project work takes the form of an action research project. The vast majority of students emphasizes that this ambition (to apply theory to concrete practice) is extremely helpful and essential to their learning.

"Can you give some examples of activities during your education that made the classroom and the workplace converge?"

"Yes. Initially, I was not very engaged in what you could call "the practicality of the education". I had signed up for an academic education and pictured something with long quiet aisles filled with book shelves and lectures providing me with abstract concepts and new theoretical insight. However, the teachers told us from the beginning that their way of teaching would constantly force us to translate our learning in the classroom to our daily practice. I really did not have great faith in this strategy and were sure that it would not have any bearing on my learning or the learning of my organization. Nevertheless, I must admit that this educational approach – us doing research in our own organization – has contributed a lot to my management practice, to my learning and actually to my organization."

However, making action research the primary educational strategy of a complete semester is not without problems either. Thus, in the following we will describe some of the pros and cons of this educational strategy as outlined by the former students.

Doing action research in your own organization – pros and cons

"Can you give me some concrete examples of how action research has enhanced your learning?"

"Yes, what I did was that I said: 'I have to believe in what we are taught. That this is a proper way to go about doing academic education. I have to go wholeheartedly into this project or at least signal to my middle managers that I am fully engaged. Thus, I went home and initiated a project with my management team - the middle

management team. I have to say that I was impressed by how much trust they actually imposed on me and how much recognition I received from them during this process. When I showed up and announced 'This is what we're doing now', they committed themselves 100 percent to the action research project. Suddenly, I had the privilege of witnessing a process that in some ways were self-sustaining since my middle managers contributed. Our project focused on how we could become a high performance team and my middle managers - functioning as co-researchers - provided the data. We all worked seriously, and implemented many changes to our team and the organization as a whole. We actually became a high-performance team, and all I did was using the tools I had been presented with during my training."

First and foremost, the quote above illustrates an important theme often mentioned by the students, namely that in most cases the action learning process proceeds easiest and most satisfactorily when education and work can be combined without the student really needing to reflect upon the differences between education and work and thus not take any special considerations in order to converge the two settings. In the case example presented above, the manager is simply just managing her team of middle managers, and in principle, the action research project is merely an extension or an ad-on to her ordinary managerial work. However, the quote also illustrates that even though the project was a success, doing action research in your own organization as part of a training program imposes some inherent challenges upon the students. In this example, the manager describes how she has to overcome herself before getting started with the project. Even though the action project simulates her "normal work", there is still an uncertainty to overcome. This uncertainty may be due to the student being unaccustomed to the academic way of working, and several student voice a concern that they as managers may appear less secure and competent than many managers consider appropriate for their position. As we will discuss later in this paper, it can be extremely difficult and potentially anxiety provoking to assume the role of student and novice action researcher with the expectations and authority that accompany this specific position while at the same time assuming the significantly more powerful role of manager. Thus, several students have told us that they initially needed to overcome themselves in order to assume the role of student and researcher in their own organization.

However, it is not in all cases that the students experience the practice orientation of the Master's Program as helpful. Some students mention that in their busy working life the educational demand of initiating action research projects - no matter how exciting they may be - can be an intense stressor. The pressure is further increased if you do not have access to a viable organizational problem or find yourself in a situation where an action research project with you as the researcher in charge and your colleagues or employees as your co-researchers seem improbable. Since project work, literature reading and other study activities typically becomes an addition to the student's normal working hours and work tasks, it can in some cases be

experienced as a massive extra mental strain to be forced to look for suitable problems in their own organizational context that will provide as material for a time consuming action research project. In these cases, project work, rather than enriching the practice of the students, may become a further stress factor that counteracts the intentional learning process.

“Well, the course description states that one should expect to spend 15-20 hours a week studying and that proved to be true. I would say that its two years of my life, where it feels like all I did was attending work and school. It was two years of my life in which family-life was not a high prioritization of mine. I only saw my grown up daughters to the most necessary extent since I always had something I needed to do or somewhere I needed to be. Something I needed to read or to prepare. However, I had discussed this with my family beforehand. We all thought that it was time for me to do this for myself. After all, it was not so bad. I found time to celebrate Christmas and I did participate in the birth of my first grandson.”

PBL and authenticity - about serious and less serious contexts

In a previous article (Stegeager et al. 2013), we define one of the challenges of continuing education as a question of distinguishing between serious and less serious contexts. In the article, we primarily use this distinction to define a qualitative distinction between the classroom (the non-serious context) and the workplace (the serious context). However, this distinction between contexts is further nuanced in our recent interviews.

“I was part of a project group and the project was tied to a problem at the organization of one of my fellow students. We had a general theme in relation to change processes, but I could not commit myself fully. I could not find the energy. I did not find it meaningful to attribute my attention to another organization. It did not motivate me at all. It was easy to participate in the project work and write the final project paper. We did a good job and it was a nice process - but it did not motivate me. Looking back on the process, I realize that I did not sign up for this education to get a diploma. My goal was to be inspired in relation to my current tasks. I came to realize that for this to happen I needed to focus on real problems in my own organization.”

Several students report that doing project work and action research at the workplace of their fellow students is experienced significantly different from action research-based, project work in their own organization. Although none of the students use this particular word, we think that, one can argue that this experience can be attributed to the question of the perceived seriousness of the context. As we see in the quote above, the student has no problem participating or understanding why this is a relevant organizational problem. However, it is as something is missing in her learning process. We suggest that the missing piece might be the experience of urgency or

relevance that predominantly is related to serious contexts (in this case, her organization). In principle, a less serious context can enhance creativity and learning, since this context to a lesser degree is limited by the constraints and norms of the serious context. On the other hand, this freedom can also culminate in indifference. This is especially true in cases where the less serious context becomes so non-serious that it more or less loses its comparability with the serious context. The student, quoted above, describes how the project work loses its intensity or appearance of necessity – a quality that accompanies doing project work in serious contexts. Succeeding becomes less important and the transfer potential between this non-serious context and her work place is somehow lost. Hence, in most cases it seems reasonable to assume that the greatest transfer potential is found in situations where students elect to make their own organization center for their action research-based, project work, since project work in their own organization is shrouded in a special form of seriousness. It means something to the students if the project is successful or not - there is something at risk. This intensity can potentially provide the learning with a distinctive quality, thus improving the likelihood of subsequent transfer.

However, our interviews indicate that there may also be significant learning qualities associated with action research-based, project work in less serious contexts. As an example of this point of view one former student reports that she probably should have done all her projects in a different organization than her own. This student was not happy with her work situation and actually changed her position during the course. In her case one can argue that the seriousness of the workplace became so serious that it obstructed the playful and experimental elements that are part of every learning process. Action research as educational strategy is rooted in the assumption that we learn through action and subsequent reflection. If the seriousness of the workplace prevents experimentation and change, thus retaining the student in certain routines and patterns of action, this will effectively minimize learning and transfer.

Along the same line, another student describes how he were set free, when he realized that he did not need to make his own professional engagement (he worked as a private consultant) the center of his project work. The fact that there were no economic claims (since he acted as a partner in the organization of one of his fellow students) removed the pressure from his shoulders. Thus the intensity of the learning situation were reduces which allowed him to engage himself in the learning process in a way that he would not have been able to, had he been hired as a professional consultant in the organization where he also were to act as student action researcher. Actually, several students reported, that doing action research-based, project work in another organization helped them to focus on the learning process instead of the outcome.

“So you did your final project work in a different organization than your own. How was that experience?”

"I guess you could say that the learning process to a higher degree was centered on me as a human being and less as an employee looking to acquire certain skills. Since I found myself in an unfamiliar environment, I had to pick up both written and unwritten rules on the fly. This also meant that I had to do things differently than I am used to. Looking back, I think that the result of the process to a higher degree can be described as a personal development process rather than a professional development process."

For this student, doing action research in a "foreign" organization helps him to set aside the production requirements that would be an immanent part of a project in his own organization. This is an important point when designing learning processes based on the principles of action research. If the workplace demands a certain outcome, thereby forcing the student to focus on the product rather than the process this could ultimately mean that the learning element of the action research project disappears. Instead of seeing themselves as students who learn while trying to solve a problem at their own workplace, the student is transformed into a regular employee whose primary objective is to meet the demands of the workplace. In this case, the action research project is in risk of being perceived as a cumbersome and disturbing element - a time consuming element that prevents the employee from doing his job effectively (rapidly) and an unnecessary risk since the outcome of these kind of projects cannot be certain (if they were they would not be suited for an academic project). Thus, the less serious context helps some students to focus on the learning aspect of the project work. However, it is interesting that the student quoted above associates the learning from the project work in his fellow student's organization with personal rather than professional development. He has become wiser and more knowledgeable, but apparently, it is difficult for him to see how these merits can be of importance for him in his own working life. The result of the action research project becomes a personal enrichment for this student, which, however, does not translate to the workplace. Thus it might be that the less serious context obstructs transfer of learning between education and work since the differences between the context of the action research project and that of the work place are too far apart. A thesis that is in line with the famous theory of identical elements (Thorndike & Woodworth, 1901).

The problem of the many hats

One last subject related to the problem of navigating between serious and less serious contexts, is what we call "the problem of the many hats". An academic, practice-based Master's Program such as MBU forces students to assume multiple roles when doing action research in their own organization. These multiple roles can in some cases become quite problematic to handle, as some roles challenges the legitimacy of others. As we saw above the consultant decided to participate in a research project in organizations that did not pay him for his service. The student explained that this was because it was harder to focus on his own learning when someone paid him to deliver a specific goal oriented service. However, the payment is probably not a problem in itself. We would

think that the actual problem is the relationship that the payment constitutes. It might be that being paid forces the student into a professional seller/buyer relationship. He must therefore assume a role, which in his view is incompatible with the role of a student and an experimenter.

Especially one group of students report that they are seriously burdened with the problem of the many hats, namely managers. The position as a manager is often associated with concepts such as authority, seeing the big picture, decision-making, setting the direction for the organization, etc. In short, it is a position of considerable power (implicit as well as explicit). However, when the manager following our Master's Program assumes the significantly less powerful role of student and action researcher, some find that this is a potential threat to his position as manager and authority figure. This may prove particularly difficult for new executives feeling unsure of themselves in their new managership role.

"So you say you were appointed manager while completing your Master's"

"Yes."

"Did you tell your employees that you were in training?"

"They knew that I was participating in the Master's Program, but they did not know that the action research project that I initiated in my organization was part of my training. I did not tell them because I would not give them the impression that I was experimenting with something that I was not sure, what would lead to. It was a completely new department, and people were flown in from all over the world. It was very hectic so we had to acquaint each other while we were really busy. In this situation, I did not want to play such an insecure card while everything else were up in the air as well. Looking back, I could probably have presented it as a scaffold for our work. I could have done that, but I did not, because I did not want my employees to think that they were exposed to something I was not completely in control of."

Several other students report the same experience when being forced to initiate an action research project in an organization they have recently joined. As the quote above indicates, it is probably easier to assume the less powerful role of a student when you hold a strong and rooted position in your organization. This impression is confirmed by the more experienced managers in our interviews, who to a less degree report struggling with multiple roles while doing action research-based, project work than more inexperienced managers in our interview sample. However, it is not only managers that experience these problems of competing roles. One of the students, employed as a teacher, reports that he and a fellow student did an actions research project focusing on the collaborative culture of managerial teams in his organization. During the project, they became aware of a number of problematic issues, which led to him stepping out of

the project work and leaving it to his fellow students to complete the project. His position as an employee made it impossible for him to continue working as a student researcher.

The manager as learning facilitator

The previous sections summarize some of the individual challenges that the student's experiences when doing action research in their own organization. In this section, we will discuss what kind of organizational frame and support is needed in order to succeed as a student and an action researcher in your own organization

Some of our findings from the initial analysis indicate that the manager of the organization plays a decisive role in order for the learning goals of the students to be fulfilled. Furthermore, the successful action research projects are very dependent on good communication between the student and her manager, as well as the manager's ability to understand and support initiatives from the employee/student.

Reading through learning portfolios (an obligatory part of the project reports of the 3rd semester), it becomes clear, that the action research projects are highly dependent on the support of the organization and especially the manager. One student didn't get any support from her manager at all. During her training, her organization went through a lot of organizational change including a change of management. The student reflects in the following quote on the progress on the semester and the impact that the lack of support due to organizational changes had on her project and her learning. .

"From the beginning of the semester I had the feeling that I would stand alone with my project. My top manager did not show any interest in neither my education nor my projects focusing on my own organization. I decided to involve my immediate manager in the process of the Action Research project, and thereby also in the research question and following interventions, but I continued to face resistance and lack of interest."

The lack of interest, interaction and support of the manager frustrates the student and can be seen as a barrier for the student to reach her educational goals. Her learning portfolio shows that this affects the action research project as well, and because of this it is almost impossible for her to write her project. In this case, the manager can be seen as a decisive factor when determining the probability of success of the project based on the organizational willingness to interact on changes initiated by the student. The students often find themselves being very dependent on their manager acting as a supportive gatekeeper allowing for time, space and opportunity for the action research project.

Below another student shares her experiences of the importance of acquiring the support of her manager. This case differs from the case mentioned above, because this student from the beginning experienced that her manager showed a strong interest in her project, and this made it easier for her to initiate the interventions and to reflect on how they affected the organizational learning and change. In her learning portfolio, she highlights the following perspectives as essential to the success of her project.

“From the beginning it was obvious that I had the support of my manager, and that he bought in to the idea of initiating an action research project within my organization. This made me feel safe, and gave me confidence that I could handle the processes I initiated throughout the action research period. The support of my manager also made it easier to work with my colleagues in an action research setting, where the aim was to focus on curiosity and the organizational change created on the basis of this curiosity and our mutual actions.”

There are two important points in the quote above that we want to underline. First of all the managers interest in and acceptance of the action learning project imposes confidence in the student helping her to overcome her own insecurities (as addressed earlier in this paper) and thus fling herself into the project. Another important point is the manager’s role as gatekeeper. As a manager he holds the power to either enhance or inhibit the project (Reason & Bradbury, 2001). There is no doubt that the involvement of her manager in this case had quite a significant impact on her project as well as the organization, because it helped connect academia with the organizational life. Furthermore this student was a mid-level manager herself, which one can assume impacted her success of involving colleagues as well.

A third perspective to the question of the manager as a learning facilitator is pinpointed by the story of a third student. This student experienced that his manager were not just interested in the organizational change process initiated through the action learning project, but in the academic side of the education as well. Because of this, this student suddenly often found himself in academic discussions about relevant questions with her manager opening up a completely new relationship between them.

“My relation and discussions with my manager brought my project into life, and it helped me to combine the theory learned at the University with actual challenges of my organization. This also helped me clarify the lessons learned from the newest research with challenges experienced in ‘real life’”

This quote describes how the student used the conversations with his manager to develop his ability to anchor the lessons learned from the Master in practice and in theory. If the manager, like the one in this case, embraces the educational logic as a whole – not just as a mean for

organizational development but also an opportunity for personal enrichment and enlightenment new opportunities for creating organizational value may arise.

These three quotes describes different perspectives and experiences reported by students working with action research in an educational setting. The model depicted below illustrates the foundation that a successful action research project, initiated by a student must rest on. The model shows important elements, when creating a learning environment between the Master's Program, the student and the organization.

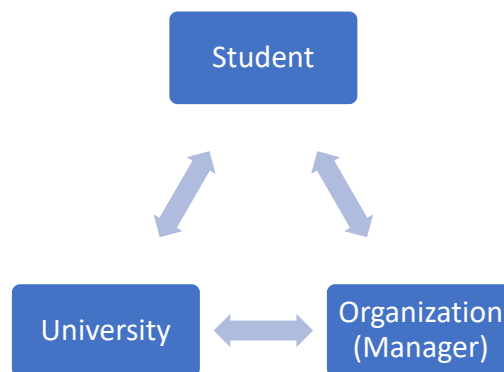


Figure 1: Learning environment between Master education, Student and Organization

In the model, the university is represented by the researchers, the newest subject-related knowledge on the area and the supervisor of the action research project. The role of the University is not described in details in the students' quotes. However it is important to remember that the pedagogical basis is presented by the teachers and thus the university of course play a central part in every action research project. The other two elements in the model are the student as the mediator between the University and the organization, and the organization. As the quotes presented above indicate, the organization is central since the learning unfolds in this context. The manager of the students play a particular important part since he functions as a gatekeeper to the organization holding the power to either enhance or inhibit the learning potential of this pedagogical strategy. When working in creating a learning environment that can benefit all three of the above mentioned interested partners, it is important to work with persons, who have an impact on the success of the "partnership", not only before and after the Master's Program, but also while the student/employee is under education.

Conclusion

This article describes some of the pro and cons that educators should take into consideration when deciding whether or not to implement action research projects as a pedagogical strategy in continuing education. In our case action research is used as a pedagogical framework engaging the

students to become active learners and to combine knowledge skills and inspiration from their Master's Program with their practice and organizational challenges thus becoming academics while creating organizational change.

The case study shows that the students are challenged by combining the serious and less-serious contexts, and that it can be difficult to allow for necessary time and space to experiment, in the busy everyday life of the organization. Moreover it requires a lot of effort from the student to initiate actions in their own organization as it involves reflections on power positions and ability to have an impact on organizational change. Last the role of the nearest manager is underlined as an important gatekeeper function. Thus, the manager will in most cases can have a decisive impact on the outcome of the action research project and it is crucial that the students gain the support of their managers before undertaking their projects. If action research shall be used as is to become a successful pedagogical tool, it requires a lot from the students and their organizations. They need to embrace to logic of the action learning process - to become active learners and to preserve time and space for the projects to become integrated in the organization.

In this article we haven't examined the role of the University and especially the supervisor, but these aspects are undoubtedly essential when initiating, framing and supporting the action research project. And we expect to unfold this topic in our continued research on the topic.

References

- Baldwin, T.T. & Ford, J.K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology*, Vol. 41: 63–105.
- Barrows, H. S. (1996). Problem-based learning in medicine and beyond: a brief overview. *New Directions for Teaching and Learning*, Vol. 68: 3-12.
- Burke, L.A. & Hutchins, H.M. (2007). Training transfer: An integrative literature review, *Human Resource Development Review*, Vol. 6(3): 263-296.
- Coghlan, D. & Brannick, T. (2010). *Doing action research in your own organization*. Thousand Oaks: Sage Publications.
- Eikeland, O. (2006). Condescending ethics and action research: Extended review article. *Action Research*, 4(1): 37-47.
- Friedman, V.J. (2001) Action Science: Creating Communities of Inquiry in Communities of Practice. In: Reason, P. & Bradbury H. (Eds.), *Handbook of Action Research: Participative Inquiry and Practice*. London: SAGE Publications: 159-170.
- Graaff, E. de, & Kolmos, A. (2007). *Management of change: implementation of problem-based and project-based learning in engineering*. Rotterdam: Sense Publishers.
- Lewin, K. (1948). Action research and minority problems. In Lewin; G.W. (Eds). *Resolving Social Conflicts*. New York: Harper & Row
- McCain, K.W. (2015). "Nothing as practical as a good theory" Does Lewin's Maxim still have salience in the applied social sciences? *Proceedings of the Association for Information Science and Technology*, 52(1): 1-4.
- Nielsen, K. Aa., & Svensson, L. (Eds.) (2006): *Action and Interactive Research - Validity in Action Research*. Maastricht: Shaker Publishing.
- Reason, P. & Bradbury, H. (Eds.) (2001): *Handbook of Action Research: Participative Inquiry and Practice*. London: SAGE.

Savin-Baden, M. & Major, C. H. (2004). *Foundations of Problem Based Learning*. London: McGraw-Hill Education.

Savin-Baden, M & Major, C. (2013). *Qualitative research: The essential Guide to Theory and Practice*. London: Routledge.

Stegeager, N., Thomassen, A. & Laursen, E. (2013). Problem Based Learning in Continuing Education – Challenges and Opportunities. *Journal of Problem Based Learning in Higher Education*. Vol. 1(1): 151-175.

Tannenbaum, S.I. & Yukl, G. (1992), Training and development in work organizations. *Annual Review of Psychology*, 43(1): 399–441.

Thorndike, E.L. & Woodworth, R.S. (1901). The influence of improvement in on mental function upon the efficiency of other functions. *Psychological Review*, Vol. 8: 247-261.

Van Merriënboer, J. J. G., Schuurman, J.G., De Croock, M.B.M., & Paas, F.G.W.C. (2002). Redirecting learners' attention during training: Effects on cognitive load, transfer test performance and training efficiency. *Learning and Instruction*, 12(1): 11-37.

Willert, S., Keller, H.D. & Stegeager, N. (2011). Academic Vocational Training: Bridging the Gap Between Educational Space and Work Place. *Electronic Journal of Knowledge Management*, Vol. 9(2): 168-180.